Amendments to the Claims

Please amend the claims as follows (the changes are shown with strikethrough for deleted matter and underlining for added matter). A complete listing of the claims is set out below with proper claim identifiers.

1. (Original) A process for producing an optically active epoxy alcohol derivative represented by general formula (14):

$$\begin{array}{c|c}
 & *5 \\
 & Ar^2
\end{array}$$
OH (14)

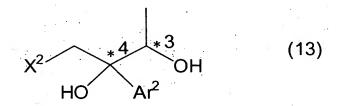
(wherein Ar² represents a substituted or unsubstituted aryl group having 6 to 20 carbon atoms; and each of *5 and *6 represents an asymmetric carbon), the process comprising:

subjecting a compound represented by general formula (6):

$$X^2$$
HO
 Ar^2
 (6)

(wherein X² represents a halogen atom; R³ represents hydrogen, a substituted or unsubstituted alkyl group having 1 to 18 carbon atoms, a substituted or unsubstituted aryl group having 6 to 20 carbon atoms, a substituted or unsubstituted aralkyl group having 7 to 20 carbon atoms, a substituted or unsubstituted silyl group, a substituted or unsubstituted acyl group having 1 to 20 carbon atoms, or a substituted or unsubstituted heterocycle; Ar² is the same as

above; and each of *3 and *4 represents an asymmetric carbon) to at least one treatment selected from acid treatment, fluorine compound treatment, and hydrogenolysis to prepare an optically active halo diol derivative represented by general formula (13):



(wherein X^2 , Ar^2 , *3, and *4 are the same as above), and then treating the resulting halo diol derivative with a base; or the process comprising:

treating the compound represented by said general formula (6) with a base.

2. (Original) A process for producing an optically active halohydrin derivative represented by general formula
(6):

$$X^2$$
HO
 Ar^2
(6)

(wherein X² represents a halogen atom; R³ represents hydrogen, a substituted or unsubstituted alkyl group having 1 to 18 carbon atoms, a substituted or unsubstituted aryl group having 6 to 20 carbon atoms, a substituted or unsubstituted aralkyl group having 7 to 20 carbon atoms, a substituted or unsubstituted silyl group, a substituted or unsubstituted silyl group, a substituted or unsubstituted acyl group having 1 to 20 carbon atoms, or a substituted or unsubstituted heterocycle; Ar² represents a substituted or unsubstituted aryl group having 6 to 20

carbon atoms; and each of *3 and *4 each represents an asymmetric carbon), the process comprising:

allowing an optically active haloketone derivative represented by general formula (4):

$$X^2$$
 $*3$ OR^3 (4)

(wherein X^2 , R^3 , and *3 are the same as above) to react with a compound represented by general formula (5):

$$Ar^2M^2$$
 (5)

(wherein Ar^2 is the same as above; and M^2 represents an alkali metal or a halogenated alkaline-earth metal).

3. (Original) The process according to claim 2, wherein the optically active haloketone derivative represented by said general formula (4) is prepared by allowing an optically active propionate compound represented by general formula (2);

$$*3$$
 (2) \mathbb{R}^2 OOC $\mathbb{O}\mathbb{R}^3$

(wherein R² represents a substituted or unsubstituted alkyl group having 1 to 18 carbon atoms, a substituted or unsubstituted aryl group having 6 to 20 carbon atoms, or a substituted or unsubstituted aralkyl group having 7 to 20 carbon atoms; R³ represents hydrogen, a substituted or unsubstituted alkyl group having 1 to 18 carbon atoms, a substituted or unsubstituted aryl group having 6 to 20 carbon atoms, a substituted or unsubstituted aralkyl group

having 7 to 20 carbon atoms, a substituted or unsubstituted silyl group, a substituted or unsubstituted acyl group having 1 to 20 carbon atoms, or a substituted or unsubstituted heterocycle; and *3 represents an asymmetric carbon) to react with an enolate prepared by reaction of a haloacetic acid derivative represented by general formula (3):

 χ^2 COOM¹ (3)

(wherein X2 is same as above; and M1 represents hydrogen, an alkali metal or a halogenated alkaline-earth metal) with a base, and then subjecting the resulting compound to acid treatment.

- 4. (Original) The process according to claim 3, wherein the base is tert-butylmagnesium chloride.
- 5. (Currently Amended) The process according to claim 3 or 4claim 3, wherein the compound represented by said general formula (2) is allowed to react with the compound represented by said general formula (3) in the presence of an amine.
- 6. (Currently Amended) The process according to claim 1, wherein the compound represented by said general formula (6) prepared by any one of processes according to claim 2 is used.
- 7. (Original) A process for producing an optically active halo diol derivative represented by general formula (13):

$$X^2$$
HO
 Ar^2
OH
(13)

(wherein X² represents a halogen atom; Ar² represents a substituted or unsubstituted aryl group having 6 to 20 carbon atoms; and each of *3 and *4 represents an asymmetric carbon), the process comprising:

subjecting a compound represented by general formula (6a):

$$X^2$$
HO
 Ar^2
 $*^4$
 $*^3$
 OR^9
 $(6a)$

(wherein X², Ar², *3, and *4 are the same as above; and R⁹ represents a substituted or unsubstituted alkyl group having 1 to 18 carbon atoms, a substituted or unsubstituted aryl group having 6 to 20 carbon atoms, a substituted or unsubstituted aralkyl group having 7 to 20 carbon atoms, a substituted or unsubstituted silyl group, or a substituted or unsubstituted heterocycle) to at least one treatment selected from acid treatment, fluorine compound treatment, and hydrogenolysis.

8. (Original) A process for producing an optically active epoxide derivative represented by general formula (16):

$$\begin{array}{c|c}
N & N & *8 \\
N & Ar^2
\end{array}$$
(16)

(wherein Ar² represents a substituted or unsubstituted aryl group having 6 to 20 carbon atoms; and each of *7 and *8 represents an asymmetric carbon), the process comprising:

allowing an optically active halo diol derivative represented by general formula (13):

$$X^2$$
HO
 Ar^2
(13)

(wherein X^2 represents a halogen atom; Ar^2 is the same as above; and each of *3 and *4 represents an asymmetric carbon) to react with a compound represented by general formula (15):

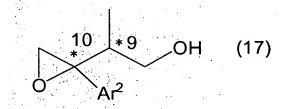
$$R^{11}SO_2 \longrightarrow N$$

$$= N$$
(15)

(wherein R¹¹ represents a substituted or unsubstituted alkyl group having 1 to 18 carbon atoms, a substituted or unsubstituted aryl group having 6 to 20 carbon atoms, or a substituted or unsubstituted aralkyl group having 7 to 20 carbon atoms).

9. (Original) The process according to claim 8, wherein the compound represented by said general formula (13) prepared by the process according to claim 7 is used.

10. (Original) A process for producing a compound represented by general formula (17):



(wherein Ar² represents a substituted or unsubstituted aryl group having 6 to 20 carbon atoms; and each of *9 and *10 represents an asymmetric carbon), the process comprising:

subjecting a compound represented by general formula (19):

$$X^{2}$$
HO
 Ar^{2}
OR³ (19)

(wherein X² represents a halogen atom; R³ represents hydrogen, a substituted or unsubstituted alkyl group having 1 to 18 carbon atoms, a substituted or unsubstituted aryl group having 6 to 20 carbon atoms, a substituted or unsubstituted aralkyl group having 7 to 20 carbon atoms, a substituted or unsubstituted silyl group, a substituted or unsubstituted acyl group having 1 to 20 carbon atoms, or a substituted or unsubstituted heterocycle; and Ar², *9, and *10 are the same as above) to at least one treatment selected from acid treatment, fluorine compound treatment, and hydrogenolysis to prepare an optically active halo diol derivative represented by general formula (20):

$$X^{2}$$
 $+9$ OH (20)

(wherein X^2 , Ar^2 , *9, and *10 are the same as above), and then treating the resulting diol derivative with a base; or the process comprising:

treating the compound represented by said general formula (19) with a base.

11. (Original) A process for producing an optically active halohydrin derivative represented by general formula (19):

$$X^{2}$$
HO
 Ar^{2}
OR³ (19)

(wherein X² represents a halogen atom; R³ represents hydrogen, a substituted or unsubstituted alkyl group having 1 to 18 carbon atoms, a substituted or unsubstituted aryl group having 6 to 20 carbon atoms, a substituted or unsubstituted aralkyl group having 7 to 20 carbon atoms, a substituted or unsubstituted silyl group, a substituted or unsubstituted silyl group, a substituted or unsubstituted acyl group having 1 to 20 carbon atoms, or a substituted or unsubstituted heterocycle; Ar² represents a substituted or unsubstituted aryl group having 6 to 20 carbon atoms; and each of *9 and *10 represents an asymmetric carbon), the process comprising:

allowing an optically active haloketone derivative represented by general formula (21):

$$X^2$$

$$0$$

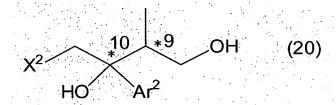
$$*9 OR3 (21)$$

(wherein X^2 , R^3 , and *9 are the same as above) to react with a compound represented by general formula (5):

$$Ar^2M^2 \qquad (5)$$

(wherein Ar^2 is the same as above; and M^2 is an alkali metal or a halogenated alkaline-earth metal).

- 12. (Original) The process according to claim 10, wherein the compound represented by said general formula (19) prepared by the process according to claim 11 is used.
- 13. (Original) A process for producing an optically active halo diol derivative represented by general formula (20):



(wherein X^2 represents a halogen atom; Ar^2 represents a substituted or unsubstituted aryl group having 6 to 20 carbon atoms; and each of *9 and *10 represents an asymmetric carbon), the process comprising:

subjecting a compound represented by general formula (19a):

$$X^{2}$$
HO Ar^{2}
OR⁹ (19a)

(wherein X^2 , Ar^2 , *9, and *10 are the same as above; and R^9 represents a substituted or unsubstituted alkyl group having 1 to 18 carbon atoms, a substituted or unsubstituted aryl group having 6 to 20 carbon atoms, a substituted or unsubstituted aralkyl group having 7 to 20 carbon atoms, a substituted or unsubstituted silyl group, or a substituted or unsubstituted heterocycle) to at least one treatment selected from acid treatment, fluorine compound treatment, and hydrogenolysis.

14. (Currently Amended) A process for producing a compound represented by general formula (18):

(wherein Ar^2 , *9, and *10 are the same as above), the process comprising:

allowing the compound represented by said general formula (17) prepared by the process according to claim 10 or 12claim 10 to react with 1,2,4-triazole.

15. (Original) A process for producing an optically active hydroxy compound represented by general formula (12):

$$Y \xrightarrow{*4} \overset{*3}{ }Z$$
 (12)

(wherein Y represents a halogen atom or a substituted or unsubstituted heterocycle; Ar² represents a substituted or unsubstituted aryl group having 6 to 20 carbon atoms; each of *3 and *4 represents an asymmetric carbon; and Z represents general formula (8):

$$-0-R^4$$
 (8)

[wherein R⁴ represents hydrogen, a substituted or unsubstituted alkyl group having 1 to 18 carbon atoms, a substituted or unsubstituted aryl group having 6 to 20 carbon atoms, a substituted or unsubstituted aralkyl group having 7 to 20 carbon atoms, a substituted or unsubstituted silyl group, a substituted or unsubstituted acyl group having 1 to 20 carbon atoms, or a substituted or unsubstituted or unsubstituted heterocycle], general formula (9):

$$--N < R5$$
 (9)

[wherein R⁵ and R⁶ independently represent hydrogen, a substituted or unsubstituted alkyl group having 1 to 18 carbon atoms, a substituted or unsubstituted aryl group having 6 to 20 carbon atoms, a substituted or unsubstituted aralkyl group having 7 to 20 carbon atoms, a substituted or unsubstituted silyl group, a substituted or unsubstituted acyl group having 1 to 20 carbon atoms, a substituted or

unsubstituted alkyloxycarbonyl group having 1 to 18 carbon atoms, a substituted or unsubstituted aralkyloxycarbonyl group having 7 to 20 carbon atoms, or a substituted or unsubstituted aryloxycarbonyl group having 6 to 20 carbon atoms], general formula (10):

$$-SO_{n}-R^{7}$$
 (10)

[wherein R⁷ represents hydrogen, a substituted or unsubstituted alkyl group having 1 to 18 carbon atoms, a substituted or unsubstituted aryl group having 6 to 20 carbon atoms, or a substituted or unsubstituted aralkyl group having 7 to 20 carbon atoms; and n represents an integer of 0 to 2], or general formula (11):

$$-CH_2OR^8$$
 (11)

[wherein R⁸ represents hydrogen, a substituted or unsubstituted alkyl group having 1 to 18 carbon atoms, a substituted or unsubstituted aryl group having 6 to 20 carbon atoms, a substituted or unsubstituted aralkyl group having 7 to 20 carbon atoms, a substituted or unsubstituted silyl group, a substituted or unsubstituted acyl group having 1 to 20 carbon atoms, or a substituted or unsubstituted heterocycle]), the process comprising:

allowing a compound represented by general formula (7):

$$Y \xrightarrow{*3} Z \qquad (7)$$

(wherein Y, Z, and *3 are the same as above) to react with a compound represented by general formula (5):

$$Ar^2M^2 \qquad (5)$$

(wherein Ar^2 is the same as above; and M^2 represents an alkali metal or a halogenated alkaline-earth metal).

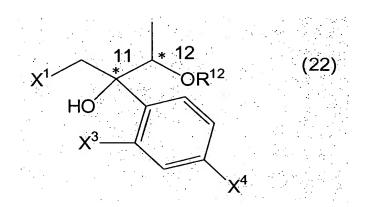
16. (Original) An optically active halohydrin derivative represented by general formula (1):

$$X^1$$
 X^1
 X^1

(wherein X¹ represents a halogen atom; Ar¹ represents a substituted or unsubstituted aryl group having 6 to 20 carbon atoms; R¹ represents hydrogen, a substituted or unsubstituted alkyl group having 1 to 18 carbon atoms, a substituted or unsubstituted aryl group having 6 to 20 carbon atoms, a substituted or unsubstituted aralkyl group having 7 to 20 carbon atoms, a substituted or unsubstituted silyl group, a substituted or unsubstituted acyl group having 1 to 20 carbon atoms, or a substituted or unsubstituted are unsubstituted heterocycle; and each of *1 and *2 represents an asymmetric carbon).

- 17. (Original) The halohydrin derivative according to claim 16, wherein Ar¹ represents 2,4-difluorophenyl group or 2,5-difluorophenyl group.
- 18. (Currently Amended) The halohydrin derivative according to claim 16 or 17claim 16, wherein R¹ represents tert-butyldimethylsilyl group, pivaloyl group, or tetrahydropyranyl group.

- 19. (Currently Amended) The halohydrin derivative according to any one of claims 16 to 18claim 16, wherein R^1 represents pivaloyl group.
- 20. (Original) An optically active halohydrin derivative represented by general formula (22):



(wherein each of X¹, X³, and X⁴ represents a halogen atom; R¹² represents hydrogen, a substituted or unsubstituted alkyl group having 1 to 18 carbon atoms, a substituted or unsubstituted aryl group having 6 to 20 carbon atoms, a substituted or unsubstituted aralkyl group having 8 to 20 carbon atoms, a substituted or unsubstituted silyl group, or an aliphatic acyl group; and each of *11 and *12 represents an asymmetric carbon).

- 21. (Original) The halohydrin derivative according to claim 20, wherein each of X^3 and X^4 represents fluorine.
- 22. (Currently Amended) The halohydrin derivative according to claim 20 or 21<u>claim 20</u>, wherein R¹² represents tert-butyldimethylsilyl group or pivaloyl group.

- 23. (Currently Amended) The halohydrin derivative according to any one of claims 20 to 22 claim 20, wherein R¹² represents pivaloyl group.
- 24. (Original) An optically active halohydrin derivative represented by general formula (23):

(wherein each of X¹, X⁵, and X⁶ represents a halogen atom; R¹³ represents hydrogen, a substituted or unsubstituted alkyl group having 1 to 18 carbon atoms, a substituted or unsubstituted aryl group having 6 to 20 carbon atoms, a substituted or unsubstituted aralkyl group having 7 to 20 carbon atoms, a substituted or unsubstituted silyl group, a substituted or unsubstituted acyl group having 1 to 20 carbon atoms, or a substituted or unsubstituted heterocycle; and each of *13 and *14 represents an asymmetric carbon).

- 25. (Original) The halohydrin derivative according to claim 24, wherein each of X^5 and X^6 represents fluorine.
- 26. (Currently Amended) The halohydrin derivative according to claim 24 or 25claim 24, wherein R¹³ represents

tert-butyldimethylsilyl group, pivaloyl group, or tetrahydropyranyl group.

27. (Currently Amended) The halohydrin derivative according to any one of claims 24 to 26claim 24, wherein R^{13} represents pivaloyl group.